

REMARKS

Claims 1-36 are pending in this application. Claims 1, 2, 7 and 9 have been amended and claims 37-40 have been added by the present Amendment. Amended claims 1, 2, 7 and 9 and new claims 37-40 do not introduce any new subject matter.

Claims 26-36 have been withdrawn from consideration without prejudice pursuant to 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention.

CLAIM OBJECTIONS**Claim 2**

The Examiner objects to claim 2 because the recitation of 45 degrees "should have read as . . . 90 degrees." Applicant has amended claim 2 to recite "90 degrees".

Claims 7-25

The Examiner objects to claims 7-25, stating that claims 7-25 "should be the method claims instead of device claims as currently read". The Examiner has stated no basis for this objection, and Applicant disagrees with the Examiner's assessment of the claims 7-25. Claims 7-25 are proper device claims and need not be converted to method claims. If Examiner has any further comments in connection with this issue, it is suggested the Examiner and/or Examiner's Supervisor contact the undersigned via telephone to discuss same.

Claim 9

The Examiner objects to claim 9 as having "unclear meaning" with respect to the phrase "a storage electrode having an increased width". To clarify the meaning of claim 9, Applicant has amended claim 9 to recite "a storage electrode having an increased width with respect to a width of the storage electrode line".

Accordingly, Applicant respectfully requests that the objections to claims 2 and 7-25 be withdrawn.

REJECTION UNDER 35 U.S.C. § 102

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. § 2131.

Reconsideration is respectfully requested of the rejection of claims 1-9, 12 and 23 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,897,909 ("Ochiai"). Applicant respectfully submits that amended claims 1 and 7 and the claims dependent thereon are not anticipated by Ochiai.

Independent Claims 1 and 7

Applicant respectfully submits that Ochiai does not disclose the limitations of amended claims 1 and 7, especially a plurality of second lines including intermediate portions that intersect the first signal lines and extend from curved portions of the second lines at an angle with respect to the curved portions, as recited in claim 1; and a data line including an intermediate portion that crosses a gate line substantially at a right angle and extends from a curved portion of the data line at an angle with respect to the curved portion, as recited in claim 7.

Ochiai does not disclose or suggest the claimed intermediate portions. In stark contrast, each illustrated drain line (DL) in Ochiai consists of only curved portions. The

drain lines (DL) do not include intermediate portions. Indeed, the curved portions of the drain lines (DL) in Ochiai extend to intersect the gate lines (GL), without an intermediate portion.

In addition, the polysilicon (PSI) shown in Fig. 1 is not an extension of the drain line (DL). Indeed, the polysilicon (PSI) is formed under the drain line (DL). Further, the polysilicon (PSI) is not part of the drain line (DL) and does not connect curved portions of the drain line (DL). Accordingly, the polysilicon (PSI) is not an intermediate portion thereof. Therefore, Applicant respectfully submits that Ochiai does not disclose or suggest the intermediate portions as recited in claims 1 and 7.

Applicant also notes that Ochiai fails to disclose or suggest "a drain electrode . . . separated from the data line", as recited in claim 7. The Examiner analogizes the drain line (DL) to the claimed data line. However, Ochiai states that the drain line (DL) functions as the drain electrode. See Ochiai, col. 11, lines 13-18. Therefore, under Examiner's reasoning, the drain electrode cannot be separated from the data line, since the drain line and the drain electrode are the same element. Accordingly, Ochiai does not disclose or suggest "a drain electrode . . . separated from the data line", as recited in claim 7.

Therefore, Applicant respectfully submits that independent claims 1 and 7 are not anticipated by Ochiai and are in condition for allowance.

Also, claims 2-6 depend from claim 1 and claims 8-9, 12 and 23 depend from claim 7, which, for the reasons stated hereinabove, are submitted not to be anticipated by the cited reference. For at least those very same reasons, claims 2-6, 8-9, 12 and 23 are also submitted not to be anticipated by the cited reference.

Claims 2 and 8

The Examiner maintains that Ochiai discloses (1) each of the curved portions of the data lines comprising a pair of rectilinear portions connected to each other and making an angle of about 90 degrees, as recited in claim 2; and (2) the curved portion of the data line comprising a pair of portions making a clockwise angle of about 45 degrees and a counterclockwise angle of about 45 degrees, respectively, as recited in claim 8. However, it is clear from Fig. 1 of Ochiai that the drain lines (DL) are substantially straight and are angled close to 180°, not 90°. Accordingly, Ochiai does not disclose or suggest the limitations of claims 2 and 8.

Claim 9

Claim 9 has been amended to recite a storage electrode including a storage electrode having an increased width with respect to a width of the storage electrode line. Applicant respectfully submits that Ochiai does not disclose the limitations of amended claim 9.

Claim 23

The Examiner maintains that Ochiai discloses a length of the curved portion of the data line that is about one to nine times a length of the intermediate portion of the data line, as recited in claim 23. However, as argued above, Ochiai does not disclose the claimed intermediate portion. Therefore, because Ochiai does not disclose the intermediate portion, it follows that Ochiai also does not disclose a curved portion having a length that is about one to nine times the length of the intermediate portion, as recited in claim 23.

Therefore, Applicant respectfully requests that the Examiner withdraw the

rejection of claims 1-9, 12 and 23 under 35 U.S.C. § 102(e).

REJECTIONS UNDER 35 U.S.C. § 103(a)

Reconsideration is respectfully requested of the rejection of: (1) claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Ochiai in view of U.S. Patent Application Pub. No. 2004/0004280 ("Kim"); (2) claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Ochiai in view of U.S. Patent No. 6,337,723 ("Bae"); (3) claims 13-16 under 35 U.S.C. § 103(a) as being unpatentable over Ochiai in view of U.S. Patent No. 6,879,359 ("Kikkawa"); (4) claims 24 and 25 as being unpatentable over Ochiai in view of U.S. Patent Application No. 2001/0006408 ("Matsuyama"); (5) claims 17 and 18 as being unpatentable over Ochiai in view of Kikkawa and further in view of U.S. Patent Application No. 2001/0026341 ("Lee"); and (6) claims 19-22 as being unpatentable over Ochiai in view of Kikkawa and further in view of Bae and Matsuyama.

Independent Claim 7

As argued above, Applicant respectfully submits that Ochiai does not expressly or inherently disclose a data line including an intermediate portion that crosses a gate line substantially at a right angle and extends from a curved portion of the data line at an angle with respect to the curved portion, as recited in independent claim 7. Further, it would not have been obvious in view of the cited references to develop same.

The combination of Ochiai with (1) Kim; (2) Bae; (3) Kikkawa; (4) Matsuyama; (5) Kikkawa and Lee; or (6) Kikkawa, Bae and Matsuyama, as set forth by the Examiner, does not render obvious the data line having the claimed intermediate portion, as recited in claim 7. Indeed, none of the cited references disclose data lines having the claimed configuration.

Therefore, it is respectfully submitted that Ochiai, when taken alone or in combination with the cited references does not disclose or suggest the recited features of claim 7, and that it would not have been obvious to modify Ochiai in view of the cited references to develop same.

As such, Applicant respectfully submits that claim 7 is patentable over Ochiai in view of Kim; Ochiai in view of Bae; Ochiai in view of Kikkawa; Ochiai in view of Matsuyama; Ochiai in view of Kikkawa and further in view of Lee; and Ochiai in view of Kikkawa and further in view of Bae and Matsuyama.

For at least the reason that claims 10, 11, 13-22, 24 and 25 depend from claim 7, claims 10, 11, 13-22, 24 and 25 are also submitted to be patentably distinct over the cited references.

Claim 14

The Examiner relies on Kikkawa as disclosing a color filter that extends substantially parallel to the data line, as recited in claim 14. However, it is not clear from the disclosure of Kikkawa that the color filter extends parallel to a data line. Therefore, Applicant maintains that Kikkawa does not teach the color filter as recited in claim 14.

Claims 17 and 18

The Examiner relies on Lee as disclosing the contact assistants of claims 17 and 18. The Examiner cites to ¶ 0039 of Lee, which states that the "gate wiring includes gate pads (not shown) connected to ends of the gate lines 22 for transmitting gate signals thereto."

Applicant respectfully submits that this limited disclosure in Lee does not

teach the contact assistants of claims 17 and 18, especially, a color filter including a portion formed under the contact assistant, as recited in claim 18. Therefore, Applicant maintains that the Examiner's rejection of claims 17 and 18 is based on hindsight reasoning, and should be withdrawn.

As such, Applicant requests that the Examiner withdraw the rejections of claims 10, 11, 13-22, 24 and 25 under 35 U.S.C. §103(a).

DEPENDENT CLAIMS

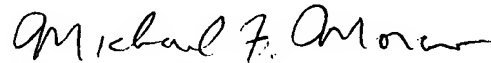
Applicant has not independently addressed the rejections of all the dependent claims because Applicant submits that, in view of the amendments to the claims presented herein and, for at least similar reasons as why the independent claims from which the dependent claims depend are believed allowable as discussed, supra, the dependent claims are also allowable. Applicant however, reserves the right to address any individual rejections of the dependent claims should such be necessary or appropriate.

NEW CLAIMS

Applicant respectfully submits new claims 37-40 for consideration, and that new claims 37-40 are patentable over the cited references for at least the reasons that (1) new claims 37-40 depend from either claim 1 or 7; (2) the cited references do not disclose the angle with respect to the curved portions is about 135 degrees, as recited in claims 37 and 38; and (3) the cited references do not disclose the intermediate portions connecting curved portions at each end of the intermediate portions, as recited in claims 39 and 40.

An early and favorable reconsideration is earnestly solicited. If the Examiner has any further questions or comments, the Examiner may telephone Applicant's Attorney to reach a prompt disposition of this application.

Respectfully submitted,

A handwritten signature in cursive script, reading "Michael F. Morano".

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